WHAT IS CLAIMED IS:

1. A method of making a fuel composition for a modified internal combustion spark ignition engine comprising combining:

(b) a fuel grade ethanol comprising 0.5% to 99% of a total volume of the fuel composition;

(c) an oxygen-containing component comprising at least one of (1) an alkanol having from 3 to 10 carbon atoms; (2) a ketone having from 4 to 9 carbon atoms; (3) a dialkyl ether having from 6 to 10 carbon atoms; (4) an alkyl ester of an alkanoic acid, said alkyl ester having 5 to 8 carbon atoms; (5) a hydroxyketone having 4 to 6 carbon atoms; (6) a keto ester of an alkanoic acid, said keto ester having 5 to 8 carbon atoms or (7) an oxygen-containing heterocyclic compound having 5 to 8 carbon atoms selected from the group consisting of tetrahydrofurfuryl alcohol, tetrahydrofurfuryl acetate, demethyltetrahydrofuran, tetramethyltetrahydrofuran, methyl tetrahydropyran, 4-methyl-4-oxytetrahydropyran, and mixtures thereof, and said oxygen-containing additive comprises 0.5% to 99% of the total volume of the fuel composition; and

(d) at least one C_6-C_{12} saturated or unsaturated aliphatic hydrocarbon, or alicyclic saturated C_6-C_{12} hydrocarbon, or alicyclic unsaturated C_6-C_{12} hydrocarbon, or aromatic C_6-C_{12} hydrocarbon, or a fraction of hydrocarbons boiling at 100-200°C, said fraction of hydrocarbons obtained in distillation of oil, bituminous coal resin or products yielded from processing of synthesis-gas,

so that a ratio between components (b)/{(c)+(d)} is from 1:200 up to 200:1 by volume.

2. The method according to claim 1, wherein said components (c) and (d) are added to said component (b).

3. A motor fuel composition for a modified internal combustion spark ignition engine comprising a mixture of:

(b) a fuel grade ethanol comprising 0.5% to 99% of a total volume of the motor fuel composition;

(c) an oxygen-containing component comprising at least one of (1) an alkanol having from 3 to 10 carbon atoms; (2) a ketone having from 4 to 9 carbon atoms; (3) a dialkyl ether having from 6 to 10 carbon atoms; (4) an alkyl ester of an alkanoic acid, said alkyl ester having 5 to 8 carbon atoms; (5) a hydroxyketone having 4 to 6 carbon atoms; (6) a keto ester of an alkanoic acid, said keto ester having 5 to 8 carbon atoms or (7) an oxygen-containing heterocyclic compound having 5 to 8 carbon atoms selected from the group consisting of tetrahydrofurfuryl alcohol, tetrahydrofurfuryl acetate, demethyltetrahydrofuran, tetramethyltetrahydrofuran, methyl tetrahydropyran, 4-methyl-4-oxytetrahydropyran, and mixtures thereof, and said oxygen-containing additive comprises 0.5% to 99% of the total volume of the motor fuel composition; and

(d) at least one C_6-C_{12} saturated or unsaturated aliphatic hydrocarbon, or alicyclic saturated C_6-C_{12} hydrocarbon, or alicyclic unsaturated C_6-C_{12} hydrocarbon, or aromatic C_6-C_{12} hydrocarbon, or a fraction of hydrocarbons boiling at 100-200°C, said fraction of hydrocarbons obtained in distillation of oil, bituminous coal resin or products yielded from processing of synthesis-gas,

wherein a ratio between components (b)/{(c)+(d)} is from 1:200 up to 200:1 by volume.

4. The composition according to claim 3, wherein said component (d) is at least one C_8-C_{11} hydrocarbon.

5. The composition according to claim 3, comprising 5% to 85% by volume of said component (b).

6. The composition according to claim 3, comprising 5% to 70% by volume of said component (c).

7. The composition according to claim 3, wherein said component (b) comprises at least about 99.5% by volume of ethanol.

8. An additive, which can be combined with gasoline to provide reduced vapor pressure hydrocarbon-based motor fuel composition for a conventional internal combustion spark ignition engine, the additive comprising a mixture of:

(b) fuel grade ethanol comprising 0.5% to 99% of a total volume of the additive;

(c) an oxygen-containing component comprising at least one of (1) an alkanol having from 3 to 10 carbon atoms; (2) a ketone having from 4 to 9 carbon atoms; (3) a dialkyl ether having from 6 to 10 carbon atoms; (4) an alkyl ester of an alkanoic acid, said alkyl ester having 5 to 8 carbon atoms; (5) a hydroxyketone having 4 to 6 carbon atoms; (6) a keto ester of an alkanoic acid, said keto ester having 5 to 8 carbon atoms or (7) an oxygen-containing heterocyclic compound having 5 to 8 carbon atoms selected from the group consisting of tetrahydrofurfuryl alcohol, tetrahydrofurfuryl acetate, demethyltetrahydrofuran, tetramethyltetrahydrofuran, methyl tetrahydropyran, 4-methyl-4-oxytetrahydropyran, and mixtures thereof, and said oxygen-containing additive comprises 0.5% to 75% of the total volume of the additive; and

(d) at least one C_6-C_{12} saturated or unsaturated aliphatic hydrocarbon, or C_6-C_{12} alicyclic saturated hydrocarbon, or C_6-C_{12} alicyclic unsaturated hydrocarbon, or C_6-C_{12} aromatic hydrocarbon, or fraction of hydrocarbons boiling at 100-200°C, said fraction of hydrocarbons obtained in distillation of oil, bituminous coal resin or products yielded from processing of synthesis-gas,

wherein a ratio between components (b)/{(c)+(d)} is from 1:200 up to 200:1 by volume.

9. A method of making a fuel composition for a modified internal combustion spark ignition engine comprising combining:

(b) a fuel grade ethanol comprising 0.5% to 99% of a total volume of the fuel composition;

(c) an oxygen-containing component comprising at least one of (1) an alkanol having from 3 to 10 carbon atoms; (2) a ketone having from 4 to 9 carbon atoms; (3) a dialkyl ether having from 6 to 10 carbon atoms; (4) an alkyl ester of an alkanoic acid, said alkyl ester having 5 to 8 carbon atoms; (5) a hydroxyketone having 4 to 6 carbon atoms; (6) a keto ester of an alkanoic acid, said keto ester having 5 to 8 carbon atoms or (7) an oxygen-containing heterocyclic compound having 5 to 8 carbon atoms selected from the group consisting of tetrahydrofurfuryl alcohol, tetrahydrofurfuryl acetate, dimethyltetrahydrofuran, tetramethyltetrahydrofuran, methyl tetrahydropyran, 4-methyl-4-oxytetrahydropyran, and mixtures thereof, and said oxygen-containing additive comprises 0.5% to 99% of the total volume of the fuel composition; and

(d) at least one C_6-C_{12} unsaturated aliphatic hydrocarbon, C_6-C_{12} alicyclic saturated hydrocarbon, C_6-C_{12} alicyclic unsaturated hydrocarbon, or a fraction of hydrocarbons boiling at 100-200°C, said fraction of hydrocarbons obtained in distillation of oil, bituminous coal resin or products yielded from processing of synthesis-gas,

so that a ratio between components (b)/{(c) + (d)} is from 1:200 up to 200:1 by volume.

10. The method according to claim 9, wherein said components (c) and (d) are added to said component (b).

11. A motor fuel composition for a modified internal combustion spark ignition engine comprising a mixture of:

(b) a fuel grade ethanol comprising from 25% to 99% of a total volume of the motor fuel composition;

(c) an oxygen-containing component comprising at least one of (1) an alkanol having from 3 to 10 carbon atoms; (2) a ketone having from 4 to 9 carbon atoms; (3) a dialkyl ether having from 6 to 10 carbon atoms; (4) an alkyl ester of an alkanoic acid, said alkyl ester having 5 to 8 carbon atoms; (5) a hydroxyketone having 4 to 6 carbon atoms; (6) a keto ester of an alkanoic acid, said keto ester

having 5 to 8 carbon atoms or (7) an oxygen-containing heterocyclic compound having 5 to 8 carbon atoms selected from the group consisting of tetrahydrofurfuryl alcohol, tetrahydrofurfuryl acetate, dimethyltetrahydrofuran, tetramethyltetrahydrofuran, methyl tetrahydropyran, 4-methyl-4-oxytetrahydropyran, and mixtures thereof, and said oxygen-containing additive comprises 0.5% to 75% of the total volume of the motor fuel composition; and

(d) at least one C_6-C_{12} unsaturated aliphatic hydrocarbon, C_6-C_{12} alicyclic saturated hydrocarbon, C_6-C_{12} alicyclic unsaturated hydrocarbon, or a fraction of hydrocarbons boiling at 100-200°C, said fraction of hydrocarbons obtained in distillation of oil, bituminous coal resin or products yielded from processing of synthesis-gas,

wherein a ratio between components (b)/{(c) + (d)} from 1:200 up to 200:1 by volume.

12. The composition according to claim 11, wherein said component (d) is at least one C_8-C_{11} hydrocarbon.

13. The composition according to claim 11, comprising 5% to 70% by volume of said component (c).

14. The composition according to claim 11, wherein said component (b) comprises at least about 99.5% by volume of ethanol.

15. An additive, which can be combined with gasoline to provide reduced vapor pressure hydrocarbon-based motor fuel composition for a conventional internal combustion spark ignition engine, the additive comprising a mixture of:

(b) a fuel grade ethanol comprising from 25% to 99% of a total volume of the additive;

(c) an oxygen-containing component comprising at least one of (1) an alkanol having from 3 to 10 carbon atoms; (2) a ketone having from 4 to 9 carbon atoms; (3) a dialkyl ether having from 6 to 10 carbon atoms; (4) an alkyl ester of an

alkanoic acid, said alkyl ester having 5 to 8 carbon atoms; (5) a hydroxyketone having 4 to 6 carbon atoms; (6) a keto ester of an alkanoic acid, said keto ester having 5 to 8 carbon atoms or (7) an oxygen-containing heterocyclic compound having 5 to 8 carbon atoms selected from the group consisting of tetrahydrofurfuryl alcohol, tetrahydrofurfuryl acetate, dimethyltetrahydrofuran, tetramethyltetrahydrofuran, methyl tetrahydropyran, 4-methyl-4-oxytetrahydropyran, and mixtures thereof, and said oxygen-containing additive comprises 0.5% to 75% of the total volume of the additive; and

(d) at least one C_6-C_{12} unsaturated aliphatic hydrocarbon, C_6-C_{12} alicyclic saturated hydrocarbon, C_6-C_{12} alicyclic unsaturated hydrocarbon, or a fraction of hydrocarbons boiling at 100-200°C, said fraction of hydrocarbons obtained in distillation of oil, bituminous coal resin or products yielded from processing of synthesis-gas

wherein a ratio between components (b)/{(c) + (d)} from 1:200 up to 200:1 by volume.